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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,086	11/01/2000	Venkatesh Vadde	NC17173	2571

26349 7590 07/02/2004

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EXAMINER

TSE, YOUNG TOI

ART. UNIT	PAPER NUMBER
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2634

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/704,086

Applicant(s)

VADDE, VENKATESH

Examiner

YOUNG T. TSE

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 2-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 05 August 2002 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Applicant note only the odd or even pages of each of the references 1 and 4 listed in form 1449 B/PTO are received (the full copies of references 2-3 and 5 have been obtained from other sources by the examiner).

Drawings

2. The drawings were received on 13 December 2001. These drawings are acceptable.

Specification

3. The disclosure is objected to because of the following informalities: on page 5, line 10, "Fig. 5" appears to read – Fig. 6 --; according to the present invention, six figures are disclosed, however, only five figures are described in the Brief Description of the Invention and the specification fails to describe Figure 6; on page 6, line 7, "24"

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should be – 32 --; and on page 12, "Fig. 5" should be – Fig. 6 --. Appropriate correction is required.

Claim Objections

4. Claims 1-10 are objected to because of the following informalities: in claim 1, line 10, "a noise channel" should be – the noise channel --; in claim 2, line 5, "a partial response signal" should be – the partial response signal --; in claim 7, lines 2-3, "inverse fast fourier transformation" should be -- inverse fast Fourier transformation --; in claim 8, line 4, "a frequency domain signal" should be – the frequency domain signal --; wherein claims 3-6 and 9-10 are depended directly or indirectly upon claims 1 and 8.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 9 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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The configuration of claims 9 and 10 does not correspond to the disclosure of the drawings. For example, referring to claim 9 together with Figure 1, claim 9 recites the receiving means (18) comprises recovering means(?), inserting means (?), and transformation means (36). According to the present invention shown in Figure 2, a system comprises a transmitter (14), a transmission channel (16), and a receiver (18). In the receiver, a S/P converter (34) is connected to the transmission channel (16) and a FFT (36) is connected to the S/P converter (34). In other words, claim 9 recites a recovering means and an inserting means are connected to the transmission means (16) before the FFT (36), but Figure 2 shows only the S/P converter (34) is connected before the FFT (36). Wherein claim 10 depends upon claim 9.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Chow et al..

Chow et al. (U.S. Patent No. 5,787,113) discloses different alternative systems in Figures 1-8.

Referring to Figure 7, the system comprises a transmitter circuit (40, 42, 28, 44, and 14), a hybrid circuit (16), and a receiver circuit (20, 46, 48, 50, 52, 54, and 56) for

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transmitting an original signal from the transmitter circuit to the hybrid circuit and recovering the original signal by the receiver circuit.

With respect to claim 1, the transmitter circuit corresponds to the transmitter for transmitting a signal to the noisy channel of the hybrid circuit (16), it is well known in the communications art that the encoder (40) and the IFFT (42) are used to generate partial response signal produced from mapping an input bit stream to a complex number domain before provide a time domain signal to the limiter and/or truncate circuit for generating a truncated signal to the receiver circuit for recovering the signal from the noisy channel of the hybrid circuit (16).

Allowable Subject Matter

9. Claims 2-7 would be allowable if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. Claim 8 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

11. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to show or suggest that the transmitter comprises a cyclic convolver circuit for generating the partial response signal or converting transformation results in a plurality of sub-symbols having near zero amplitude and a prefix circuit for appending a cyclic prefix to a leading edge of the truncated signal or a circuit for

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dropping the plurality of sub-symbols having near zero amplitude to produce a truncated time domain signal.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

References Lou, Dowling, Harikumar et al., and McEwen et al. are related to a communications system comprising a transmitter circuit, a transmission channel, and a receiver circuit for transmitting an original signal from the transmitter circuit to the hybrid circuit and recovering the original signal by the receiver circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Young Tse** whose telephone number is **(703) 305-4736**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

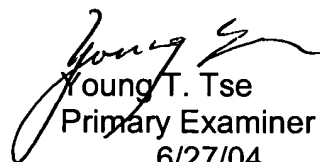
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Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


Young T. Tse
Primary Examiner
6/27/04